



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/600,181

06/20/2003

Paul Eugene Thomas

243 CON

9696

53476

7590

05/25/2007

JOSEPH A TESSARI
TREDEGAR FILM PRODUCTS
1100 BOULDERS PARKWAY
RICHMOND, VA 23225

EXAMINER

HAND, MELANIE JO

ART UNIT

PAPER NUMBER

3761

MAIL DATE

DELIVERY MODE

05/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/600,181

Applicant(s)

THOMAS ET AL.

Examiner

Melanie J. Hand

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-12, 16, 20-25, 29, 33, 37, 40 is/are rejected.
- 7) ☒ Claim(s) 2-4, 13-15, 17-19, 26-28, 30-32, 34-36, 38 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see Remarks, page 16, filed April 17, 2006, with respect to the rejection(s) of claim(s) 37, 39 and 40 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of the previously applied prior art reference of Ahr.

Applicant's arguments with respect to claims 1, 3, 5-12, 14-16, 20-25, 29 and 33 have been considered but are moot in view of the new ground(s) of rejection. Briefly, with respect to applicant's arguments that Ahr does not teach male side voids, applicant is reminded of applicant's own definition of which side of the claimed apertured sheet is which. The female side is the body-facing side and the male side is the garment-facing side. Ahr clearly teaches interconnected male side voids. The combined teaching of Ahr and Biagioli, as best depicted in Fig. 1A of Biagioli, teaches interconnected female side voids and interconnected male side voids. Further, in response to applicant's arguments against the Ahr reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3761

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 37 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Ahr et al (U.S. Patent No. 4,323,069).

Claims 37 and 40 rejected under 35 U.S.C. 102(b) as being anticipated by Ahr ('069).

With respect to **Claim 37**: Ahr teaches a method of avoiding a wetness sensation of a topsheet in an absorbent article comprising: passing fluid through an apertured acquisition distribution layer 40 to an area proximate a core material 16; and redirecting unabsorbed fluids to an area of non-saturated core material via void spaces defined by a male side of said acquisition distribution layer material. ('069, Fig. 2)

With respect to **claim 40**: Ahr teaches a method of avoiding a wetness sensation of a topsheet in an absorbent article comprising: providing an apertured acquisition distribution layer 40 defining a plurality of buckets 42 that communicate with a core material 16 at an apex opening of said plurality of buckets 42; allowing unabsorbed fluids to fill one of said plurality of buckets when an area of core material 16 beneath said one of said buckets 42 becomes saturated, and allowing said unabsorbed fluids to spill over from said one of said buckets to an adjacent bucket so that said unabsorbed fluid may contact unsaturated areas of said core material.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5-7, 11, 12, 16, 20, 24, 25, 29, 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahr ('069) in view of Biagioli et al (U.S. Patent No. 5,635,275).

With respect to **Claim 1**: Ahr teaches catamenial pad 10 having topsheet 12, absorbent core 16 and intermediate layer 40 disposed between the topsheet 12 and absorbent core 16. Layer 40 is comprised of a nonwoven film thus having two opposing surfaces and having a plurality of tapered capillaries 42 that define male and female sides. As can best be seen in Fig. 2, the walls of capillaries 42 define a void space between layer 40 and absorbent core 16. (Col. 11, lines 35-38, 50-52). As can be seen in Fig. 2, Ahr teaches interconnected male side voids providing space for unabsorbed fluid to flow over said absorbent core material without contacting said topsheet.

Ahr does not teach female side voids. Biagioli teaches first and second three-dimensional apertured films A and B laminated together, both with a top surface, bottom surface and protuberances extending from said bottom surface on each film. ('275, Fig. 9) ('275, Col. 10, lines 40-51) Biagioli teaches that the laminated film is comprised of substantially identical material to that of the intermediate layer taught by Ahr ('275, Col. 3, lines 42,43, '069, Col. 7, lines 37,38) and is useful in applications such as absorbent articles where a larger embossed thickness for fluid storage is needed, therefore it would be obvious to one of ordinary skill in the art to modify the intermediate layer taught by Ahr to be further comprised of a second three-dimensional apertured film identical to first intermediate layer 40 and laminated to said first intermediate layer to enhance fluid transfer and temporary storage capabilities as taught by Biagioli. The intermediate layer of the combined teaching of Ahr and Biagioli teaches female side voids and thus meets all of the claim limitations of claim 1.

Art Unit: 3761

With respect to **Claims 5,24**: The combined teaching of Ahr and Biagioli teaches an acquisition layer that is a multilayer film having a first three-dimensional apertured film adjacent a second three-dimensional apertured film. The first and second three-dimensional apertured films A and B are laminated together, both with a top surface, bottom surface and protuberances extending from said bottom surface on each film. ('275, Fig. 9) ('275, Col. 10, lines 40-51) The first 3-D apertured film has a male side and a first female side as defined in the instant application disclosure; said second 3-D apertured film is adjacent to said first female side and comprises interconnected male side voids. An enlarged void volume space is defined by said interconnected male side voids and said first female side voids for containing unabsorbed fluid and substantially preventing contact of said fluid with said topsheet. The motivation to combine the teachings of Ahr and Biagioli is stated *supra* with respect to claim 1.

With respect to **Claim 6**: Ahr teaches that topsheet 12 is formed by placing a heated thermoplastic film against a wire screen and a vacuum is then used to draw the film against said wire screen. (Col. 7, lines 42-47)

With respect to **Claim 7**: Ahr teaches that capillaries 42 have base openings 44. Openings 44 channel fluid that flows through apertures in topsheet 12 to the absorbent core. (Col. 11, lines 38-42)

With respect to **Claims 11 and 12**: Although Ahr is silent regarding one particular shape for the base openings 44, Ahr does teach a base opening dimension that by itself is capable of fully describing a circular or hexagonal opening (Col. 12, lines 2,3), thus Ahr is teaching that

Art Unit: 3761

openings 44 are all circular, all hexagonal or a combination of the two and thus will form a pattern that is hexagonal and circular.

With respect to **Claim 16,20**: As can best be seen from Figs. 2 and 5, Ahr teaches void volume space that is defined by the walls of capillaries 42 and is present on both the male and female sides of layer 40.

With respect to **Claim 25**: Ahr teaches topsheet 12.

With respect to **Claims 29,33**: As can best be seen from Figs. 2 and 5 ('069), Ahr teaches void volume space that is defined by the walls of capillaries 42 and is present on both the male and female sides of layer 40.

With respect to **Claim 39**: Ahr ('069) does not teach a second apertured film. Biagioli teaches first and second three-dimensional apertured films A and B laminated together, both with a top surface, bottom surface and protuberances extending from said bottom surface on each film. (Fig. 9) ('275, Col. 10, lines 40-51) Biagioli teaches that the laminated film is comprised of substantially identical material to that of the intermediate layer taught by Ahr ('275, Col. 3, lines 42,43, '069, Col. 7, lines 37,38) and is useful in applications such as absorbent articles where a larger embossed thickness for fluid storage is needed, therefore it would be obvious to one of ordinary skill in the art to modify the intermediate layer taught by Ahr to be further comprised of a second three-dimensional apertured film identical to first intermediate layer 40 and laminated to said first intermediate layer to enhance fluid transfer and temporary storage capabilities as taught by Biagioli.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahr ('069) in view of Biagioli et al (U.S. Patent No. 5,635,275) as applied to claims 1, 5-7, 11, 12, 16, 20, 24, 25, 29, 33 and 39 above, and further in view of Curro et al (U.S. Patent No. 4,772,444).

With respect to **claim 8**: The combined teaching of Ahr and Biagioli does not teach a mesh count of between approximately 2 and 25. Curro teaches a microapertured three-dimensional film with a plurality of tapered capillaries shaped according to those taught by in U.S. Patent No. 4,463,045 to Ahr et al. Curro teaches a mesh count of 50 filaments per lineal inch. This mesh count is considered herein to satisfy the claimed range, since the capillaries are substantially identical to those taught by Ahr ('069) which, in combination with Biagioli, render the claimed invention patentable, and further because applicant gives several materials with widely varying filament counts that are disclosed as conforming to the claimed mesh count range. The burden is herein upon applicant to show that the mesh count taught by Curro does not meet the limitation of claim 8. Since Curro teaches a three-dimensional apertured film that is substantially identical to that of the combined teaching of Ahr and Biagioli, it would be obvious to one of ordinary skill in the art to modify the apertured film of the combined teaching of Ahr and Biagioli so as to yield a mesh count that falls within the range set forth in claim 8 with a reasonable expectation of success.

With respect to **claim 9**: The combined teaching of Ahr and Biagioli does not teach a mesh count of between approximately 4 and 15. Curro teaches a microapertured three-dimensional film with a plurality of tapered capillaries shaped according to those taught by in U.S. Patent No. 4,463,045 to Ahr et al. Curro teaches a mesh count of 50 filaments per lineal inch. This mesh

Art Unit: 3761

count is considered herein to satisfy the claimed range, since the capillaries are substantially identical to those taught by Ahr ('069) which, in combination with Biagioli, render the claimed invention patentable, and further because applicant discloses several materials with widely varying filament counts that are disclosed as conforming to the claimed mesh count range. The burden is herein upon applicant to show that the mesh count taught by Curro does not meet the limitation of claim 8. The motivation to combine the teachings of Ahr and Biagioli and Curro has been stated *supra* with respect to claim 8.

With respect to **claim 10**: The combined teaching of Ahr and Biagioli does not teach a mesh count of approximately 8. Curro teaches a microapertured three-dimensional film with a plurality of tapered capillaries shaped according to those taught by in U.S. Patent No. 4,463,045 to Ahr et al. Curro teaches a mesh count of 50 filaments per lineal inch. This mesh count is considered herein to satisfy the claim limitation, since the capillaries are substantially identical to those taught by Ahr ('069) which, in combination with Biagioli, render the claimed invention patentable, and further because applicant discloses several materials with widely varying filament counts that are disclosed as conforming to the claimed mesh count range. The burden is herein upon applicant to show that the mesh count taught by Curro does not meet the limitation of claim 8. The motivation to combine the teachings of Ahr and Biagioli and Curro has been stated *supra* with respect to claim 8.

Allowable Subject Matter

Claims 2-4, 13-15, 17-19, 26-28, 30-32, 34-36, 38 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie J. Hand whose telephone number is 571-272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie J Hand
Examiner
Art Unit 3761

May 16, 2007

TATYANA ZALUKAEVA
SUPERVISORY PRIMARY EXAMINER

